CLAIMS

1. A radiation system (1) comprising:

- a gantry (100) adapted for arrangement in connection with at least a first treatment room (61) and a second treatment room (62) separated by a radiation-shielding separating member (71); and

- a radiation head (120) mechanically supported by said gantry (100), said radiation head (120) being movable relative said gantry (100) between a first position for directing a radiation beam (110) into said first treatment room (61) and a second position for directing said radiation beam (110) into said second treatment room (62).

2. The radiation system according to claim 1, wherein said gantry (100) comprises:

- a static gantry part (140) adapted for arrangement in said separating member (71);

- a movable gantry part (130) movably supported by said static gantry part (140), said radiation head (120) being mechanically supported by said movable gantry part (130).

3. The radiation system according to claim 1 or 2, wherein said separating member (71) is selected from at least one of:

- a radiation-shielding partition between said first (61) and second (62) treatment room;

- a radiation-shielding ceiling-floor pair between said first (61) and second (62) treatment room, said first (61) and second (62) treatment room being positioned at different floors.

4. The radiation system according to any of the claims 1 to 3, wherein said radiation head (120) directs, in said first position, said radiation beam (110) onto a first subject (50-1) positioned in said first treatment room (61) and directs, in said second position, said radiation beam (110) onto a second subject (50-2) positioned in said second treatment room (62).

5. The radiation system according to any of the claims 1 to 4, further comprising at least one radiation simulation head (200-1, 200-2), said simulation head (200-1, 200-2) being able to direct a radiation simulation beam (210-1) into said first treatment room (61) simultaneously as said radiation head (120) directs said radiation beam (110) into said second treatment room (62).

6. The radiation system according to claim 5, wherein said radiation simulation head (200-2) is movable on said gantry (100) between said first (61) and second (62) treatment room.

7. The radiation system according to claim 5 or 6, wherein said radiation head (120) is adapted for providing a treatment beam (110) and said radiation simulation head (200) is adapted for providing a treatment simulation beam (210).

8. The radiation system according to any of the claims 1 to 7, further comprising:

- a second gantry (100-2) adapted for arrangement in connection with at least said second treatment room (63, 64) and a third treatment room (65, 66) separated by a radiation-shielding separating member (71, 75, 77); and
- a second radiation head (120-1) mechanically supported by said second gantry (100-2), said second radiation head (120-2) being movable relative said second gantry (100-2) between a first position for directing a radiation beam (110-2) into said second treatment room (63, 64) and a second position for directing said radiation beam (110-2) into said third treatment room (65, 66).

9. The radiation system according to claim 8, wherein said radiation head (120-1) and said second radiation head (102-2) are configured for directing said radiation beams (110-1, 110-2) into said second treatment room (63, 64) from different incident angles.

10. The radiation system according to claim 8 or 9, further comprising a radiation beam splitter for simultaneously providing radiation from a common radiation source to said first gantry (100-1) and to said second gantry (100-2).
